

Bearing Maintenance Fundamentals

Bearing Maintenance Fundamentals – Course Description

Timken is where you turn to help increase the performance and uptime of your equipment. Our experienced instructors are qualified to cover every aspect of bearing technology. Timken's Bearing Maintenance Fundamentals workshop is designed to give attendees knowledge they can apply to their day-to-day functions.

Attendees will learn the essentials of rolling element bearing maintenance with emphasis on the correct handling, installation, removal and particularly the correct methods for properly establishing and verifying bearing adjustment.

While much of the focus will be on damage avoidance, recognition of various types of bearing damage frequently encountered in industrial machinery is very important to maintenance shop personnel. Accordingly, much emphasis will be placed on using visual clues from the damaged bearings to detect the root cause of issues with machine performance. Proper damage diagnosis and root cause identification lead to rectifying performance problems and future prevention through implementation of appropriate friction management solutions.

Further, bearing damage prevention begins at the time of bearing replacement and reassembly. Choosing the correct bearing for the application, inspection of mating components and proper handling prior to installation are all keys to ensuring performance. Improper bearing selection

or putting a new bearing into a machine that is not operating properly will likely not remedy the situation and may even reduce the lifespan and performance of that bearing. As such, proper installation practice and methods employed are crucial. The course will examine proper methods for installation including recommendations and guidelines for the heating or cooling of bearing components for assembly.

We will also cover the topic of lubrication. This section will explore the fundamentals associated with lubricant selection, replenishment and general maintenance of lubricant delivery systems for maximizing bearing life and performance. While proper lubrication is imperative, contamination is also a major source of bearing damage. A review of the different designs and functions of seals and shields will be included to assist the mechanic in recognizing and preventing seal damage which may lead to consequential bearing damage.

For the purpose of clarification, necessary information pertaining to bearing design features, product types and respective performance characteristics, will be introduced to provide attendees with background as to why specific types and mounting configurations offer advantages and are preferred over their counterparts. Combined with the installation and maintenance knowledge that are the focal point of this course, attendees will leave with a baseline understanding of bearings, how they function and the essential steps to be followed to ensure that they perform as required in the equipment.

TIMKEN

Where You Turn



Who Should Attend

These sessions have been designed and are recommended for maintenance managers, engineering managers, supervisors and technical specialists. In addition, purchasing agents, buyers and even plant managers and operations managers can benefit from the course content.

Timken offers a wide range of training opportunities from bearing fundamentals to advanced maintenance programs. Please contact your Timken sales engineer for more details on advanced levels of training.

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Precision Components • Lubrication •
Seals • Remanufacture and Repair •
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